

Remarks/Arguments:

On page 2, the Official Action rejects claims 1-30 under 35 U.S.C. § 102(e) as being unpatentable by Gwon (U.S. Publication No. 2003/0016655). It is respectfully submitted, however, that the claims are patentable over the art of record for at least the reasons set forth below.

Gwon teaches a dynamic network wherein the mobile device communicates with a router that is in communication range with. Gwon also teaches a home agent within the network, that forwards packets of information to the router which in the mobile node is currently communicating with. Gwon's home agent remains the same (does not change) regardless of which mobile node it is communicating with.

Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely:

wherein the home agent registers a care-of address that the mobile node is utilizing for communication, and the home agent forwards messages directed to a home address of the node to the care-of address...

a home agent selection section for changing...the belonging home agent into a new home agent...

Claim 1 relates to a home agent wherein communication directed to a mobile node's home address is forwarded to the mobile nodes care-of address (address that the mobile node is currently utilizing). Specifically, the home agent is selected based on the location of the mobile node. As the mobile node moves throughout the network, it selects a new home agent which is closer than its current home agent. This feature is shown in Figs. 1 and 2 and furthermore supported on page 16, lines 1-25. No new matter has been added.

In Fig. 2, Gwon shows mobile node 135 communicating with routers R1 and R2. Specifically, if mobile node 135 is closer to R1, then it would communicate through R1. In contrast, if mobile node 135 is closer to R2, then it would communicate through R2. This feature is furthermore recited in paragraphs 45 of Gwon ("*data communication between mobile node 135...is via local routers R1 and R2*"). Furthermore, Fig. 2 shows that mobile node 135

has a home agent 145. Home agent 145 is a router in the mobile nodes network which forwards packets of information to the current location of mobile node 135. For example, if a packet is sent to the home address of mobile node 135, home agent 145 forwards the packet to the current location (R1 or R2) of mobile node 135. Thus, Gwon's mobile node communicates with the router (R1, R2 or R3) whichever it is closest in communication range with. Gwon, however, does not teach changing home agents. Specifically, Gwon only shows a single home agent 145 as shown in Fig. 2. Thus, Gwon is not able to select a new home agent as recited in Applicants' claim 1 (Gwon cannot select a new home agent because he only has a single home agent).

Applicants' claim 1 is different than Gwon, because of the addition of selecting a new home agent based on a measurement value (*"a home agent selecting section for changing, when a measurement value...becomes equal to or greater than a first predetermined value, a belonging home agent into a new home agent"*). This feature is supported in the Fig. 1 where mobile node 10 communicates with router 12 through the network. Mobile node 10 is assigned to home agent 11 wherein packets addressed to the home address of the mobile node are forwarded to its current location. In Fig. 1, mobile node 10 moves to zone 16, thus router 15 is chosen for communication because it is the closest in range. In an additional process, mobile node 10 furthermore calculates the network delay or number of network hops required to communicate with home agent 11. If this delay is greater than a predetermined threshold, mobile node 10 decides to change to a new home agent (a closer home agent). For example, Fig. 2 shows mobile node changing from home agent 11 to home agent 14. This feature is supported on page 16, lines 1-25, of the specification (*"home agent 11...measures a communication delay time...when the measured number value or communication delay time is equal to or greater than a predetermined threshold, the home agent 11 sends the mobile node 10 a binding acknowledgement message instructing for a change of home agent"*). Thus, Applicants' invention is able to change home agents.

On page 3, the Official Action suggests that paragraphs 59 and 60 of Gwon teach a mobile node switching foreign agents (FA). As shown in Gwon's Fig. 4, as a mobile node moves around the network, it switches between FA's that allow it to communicate over the network. These foreign agents, however, are not home agents. As shown in Fig. 4, Gwon only has a single home agent (he does not switch home agents). The home agent is different from the FA in that the home agent is able to forward communication directed towards the mobile node's

home address to its care-of address. The foreign agents do not have this functionality. Thus, even though Gwon teaches switching FA's, he does not teach switching home agents.

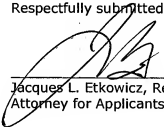
It is because Applicants include the feature of "wherein the home agent registers a care-of address that the mobile node is utilizing for communication, and the home agent forwards messages directed to a home address of the node to the care-of address...a home agent selection section for changing...the belonging home agent into a new home agent", that the following advantages are achieved. An advantage is the ability to switch home agents based on the current location of the mobile node. Switching to a home agent which is closer allows more efficient communication. Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Independent claims 9, 12, 15, 16, 19 and 28 include similar features of claim 1. Thus, claims 9, 12, 15, 16, 19 and 28 are also patentable over the art of record for at least the reasons set forth above.

Dependent claims 2-8, 10-11, 13-14, 17-18, 20-27 and 29-30 include all the features of the claim from which they depend. Thus, these claims are also patentable over the art of record for the reasons set forth above.

In view of the amendments and arguments set forth above, the above identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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